

2023 Ardagh Metal Packaging
Sustainability
report

Statement of Greenhouse Gas
(GHG) Emissions

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Statement of Greenhouse Gas (GHG) Emissions

Ardagh Metal Packaging S.A. performance data for fiscal year 2022, the 12 months ending December 31, 2022

Table 1: Scope 1, Scope 2 and Scope 3 emissions performance

Global CO ₂ e emissions (000 metric tonnes)	Fiscal 2022 ¹	Baseline Fiscal 2020	Percent Change since 2020
Scope 1 ²	156	137	14%
Scope 2 location-based ³	297	287	3%
Scope 2 market-based ³	211	210	0%
Total Scope 1 & 2	367	347	6%
Scope 3 ⁴	3,089	2,838	9%
Purchased goods and services	2,808	2,562	10%
Fuel- and energy-related activities (not included in scope 1 or scope 2)	63	72	-12%
Upstream transportation and distribution	210	182	16%
Waste generated in operations	8	22	-66%
Total Scope 1, 2 and 3	3,456	3,185	9%

Table 2: Company CO₂e emissions by Scope and by business unit

Scope 1 CO ₂ e emissions (000 metric tonnes)	Fiscal 2022	Baseline Fiscal 2020	Percent Change since 2020
Europe	70	69	1%
North America	71	56	27%
South America	15	12	25%
Global	156	137	14%

1 Third party conducted a review of Scope 1, 2 and 3 GHG emissions data for the year ended December 31, 2022. This can be found in the Sustainability area of [AMP's corporate website](#).

2 Scope 1 GHG emissions are direct emissions such as those from production and transport on site.

3 Scope 2 GHG emissions are indirect emissions from electricity use and hot water.

4 Scope 3 GHG emissions are all other indirect emissions from the organisation's value chain (e.g., the purchase of raw materials, transport and waste). We currently report on four of the fifteen categories: purchased goods and services, fuel- and energy-related activities (not included in scope 1 or scope 2), upstream transportation and distribution and waste generated in operations.

Scope 2 location based CO ₂ e emissions (000 metric tonnes)	Fiscal 2022	Baseline Fiscal 2020	Percent Change since 2020
Europe	135	144	-6%
North America	142	127	12%
South America	20	16	25%
Global	297	287	3%

Scope 2 market based CO ₂ e emissions (000 metric tonnes)	Fiscal 2022	Baseline Fiscal 2020	Percent Change since 2020
Europe	80	89	-10%
North America	129	118	9%
South America	2	3	-33%
Global	211	210	0%

GHG emissions by category of gases

All GHG emissions figures are reported in metric tonnes of carbon dioxide equivalent (CO₂e) and include the seven GHGs covered by the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄) and nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). These gases are aggregated and not reported separately because AMP uses standard emissions factors for CO₂e.

Table 3: Company recycled content⁵

Fiscal 2022	
Europe	66%
North America	67%
Brazil	79%
Global	68%

⁵ Recycled content is defined according to ISO 14021 as the proportion, by mass, of recycled material in a product or packaging. The percentages shown here include both can bodies and ends. Post-consumer scrap (e.g., used beverage cans) and pre-consumer scrap (e.g., can manufacturer class scrap, other industrial scrap, etc.) are included in these calculations. Run-around scrap is not included. Primary data on recycled content comes from our aluminium suppliers. Where primary data is not available an estimation methodology has been created and validated by a third-party consultant.

Management Assertion

Management of AMP is responsible for the completeness, accuracy and validity of the AMP Statement of GHG Emissions (the “Statement of GHG Emissions”) for the fiscal year ended December 31, 2022.

Management is also responsible for the collection, quantification and presentation of the Statement of GHG Emissions and for the selection of the criteria, which Management believes provide an objective basis for measuring and reporting. Management of AMP asserts that the Statement of GHG Emissions is presented in accordance with the GHG Protocol: A Corporate Accounting and Reporting Standard, Revised Edition, published by the World Resources Institute/World Business Council for Sustainable Development (the “GHG Protocol”).

GHG reporting policies

AMP is a leading supplier of sustainable and infinitely recyclable metal beverage cans to brand owners globally. AMP operates 24 production facilities in nine countries, with more than 6,000 employees and sales of approximately \$4.7 billion as of December 31, 2022. A partner of choice for beverage companies. AMP is 76%-owned by Ardagh Group and is listed on the New York Stock Exchange under the ticker AMBP.

Our metal beverage cans are an integral part of any circular economy, characterised by their leading recycle rate and recycled content rate on the market⁶.

AMP leverages our product’s environmental advantages by clearly supporting our customer’s sustainability platforms, reducing our impact on the environment and improving the communities we do business in. It is a strategy that utilises the unique capabilities and expertise of our entire global team as we organise such actions as material, energy, waste and water reductions and charitable actions according to our three strategy pillars, all with clear links to the SDGs:

Emissions – reduce our greenhouse gas (GHG) emissions;

Ecology – minimise our impact on the environment; and

Social – safe, diverse and inclusive team focused on customer satisfaction and supporting the communities we do business in.

Scope 1 and 2 GHG emissions information has been prepared in accordance with the World Resources Institute/World Business Council for Sustainable Development GHG Protocol: Corporate Accounting and Reporting Standard, Revised Edition.

Scope 3 GHG emissions information has been prepared in accordance with the World Resources Institute/World Business Council for Sustainable Development GHG Protocol: Corporate Value Chain (Scope 3), Accounting and Reporting Standard. Scope 3 emissions includes four of the 15 Scope 3 categories: purchased goods and services, fuel- and energy-related activities (not included in scope 1 or scope 2), upstream transportation and distribution for operations outsourced to third parties where deliveries are purchased and paid for by AMP and waste generated in operations.

Collectively, the Corporate Accounting and Reporting Standard, Revised Edition and Corporate Value Chain (Scope 3), Accounting and Reporting Standard are referred to as the GHG Protocol in this document.

A summary of the key disclosure procedures is set out below.

⁶ [International Aluminium Association \(IAI\)](#) and [Aluminum Association](#)

Baseline year GHG emissions

We are aligned to the Science-based Targets initiative (SBTi) and the UN Paris Agreement of 2015. We have identified fiscal 2020 as our baseline and have received SBTi approval for GHG emission targets covering Scopes 1, 2 and 3. AMP commits to reduce absolute Scope 1 & 2 GHG emissions and absolute Scope 3 GHG emissions by 42% and 12.3% by 2030 from a 2020 base year, respectively. AMP has also committed to sourcing 100% of its electricity from renewable sources by 2030. In fiscal 2022, renewable electricity accounted for 21% of total AMP's electricity usage.

GHG emissions reporting scope and boundaries

GHG emissions pertaining to the organisational and operational boundaries have been reported for global operations for owned, managed and leased locations including manufacturing facilities and office spaces adjacent to production facilities.

Except as described below, GHG emissions have been reported for those entities for which AMP has operational control (as defined by the GHG Protocol).

AMP's external financial performance reporting includes all subsidiaries and joint ventures in which AMP holds a controlling interest. The main differences in AMP's external sustainability reporting, which includes GHG emissions, are as follows:

- Stand-alone office buildings/spaces are excluded. Using an estimation methodology, these stand-alone office buildings/spaces would account for less than 1 percent of our Scope 1, 2 and 3 GHG emissions inventory. This has been estimated based on utility invoices for the largest office building/space and extrapolated to account for other locations considering electricity and fossil fuel usage.
- Business acquisitions during the reporting period are excluded from sustainability performance data as per the GHG Protocol. The complete dataset is reported once a full year are available and based on materiality.

The Statement of GHG emissions includes Scope 1 (direct), Scope 2 (indirect) and Scope 3 (indirect) emissions that have been reported for operations within the operational boundary described below.

Scope 1: *Direct GHG emissions from sources owned or controlled by AMP*

Our Scope 1 emissions include all relevant GHGs emitted directly from AMP's activities, as follows:

- Gas and oil used for heating
- Gas used in ovens and regenerative thermal oxidisers
- Diesel and LPG used in forklifts
- Fugitive emissions resulting from the use of refrigeration and air conditioning equipment are not included as AMP evaluates their materiality for its operations to be less than 1 percent.

Scope 2: *Indirect GHG emissions generated from purchased electricity, heat and steam consumed by AMP.*

Our Scope 2 emissions include:

- Indirect emissions from purchased/acquired electricity and purchased/acquired heat or steam consumed in buildings (offices, retail stores and warehouses).

Scope 3: *Indirect GHG emissions are emissions that are a consequence of the activities of AMP and occur from sources not owned or controlled by AMP.*

Our Scope 3 emissions include GHGs associated with the below four categories according to the GHG Protocol:

- Purchased goods and services
- Fuel- and energy-related activities (not included in scope 1 or scope 2)
- Upstream transportation and distribution for operations outsourced to third parties where deliveries are purchased and paid for by AMP
- Waste generated in operations.

The other eleven (11) categories are excluded from this reporting based on materiality. In 2022, we estimated emissions from these categories combined would account for less than 1 percent of total Scope 1, 2 and 3 GHG emissions. This analysis will be updated on a biennial basis.

Methodology

All operating business emissions data submissions are prepared and validated by the local teams with support from the sustainability teams. Operating business unit sustainability teams review and approve the submissions, which are then consolidated centrally by the sustainability team.

The sustainability team produces an internal report to benchmark all operating businesses, comparing year-on-year performance (where applicable) and baseline performance. The key outcomes of this report are shared with AMP's Board Sustainability Committee.

Energy Data

Energy data covers the resulting CO₂e emissions from energy used to operate our facilities:

- Gathered from invoices/meter readings (manual or electronic)
- Reported for all energy purchased including energy used in manufacturing operations and adjacent warehouses and office buildings/spaces
- Data not reported for operations outsourced to third parties, such as distribution centres run by third parties, unless the activity is outsourced to a dedicated third-party contractor to conduct activities on our behalf on a site AMP owns/leases.

The Scope 1 & 2 GHG emissions, measured in tonnes CO₂e, is calculated from the usage data submitted, applying the relevant conversion factors.

Purchased goods and services

Purchased goods and services data covers the resulting CO₂e emissions from the purchase of aluminium and steel (tin plate):

- Gathered purchased volume of aluminium and steel (tin plate) from internal systems
- Estimated for all purchased volume considering recycled content
- Primary data for recycled content is provided by suppliers on an annual basis
- When primary data are not available, recycled content is calculated considering average recycle rates for metal packaging. The following parameters are taken into account:
 - » Amount of purchased materials (aluminium and steel)
 - » Portion of scrap generated during the manufacturing process at AMP's facilities
 - » Average recycling rates for aluminium and steel as packaging materials in Europe, North America and South America provided by the respective industry associations.

The Scope 3 GHG emissions, measured in tonnes CO₂e, is calculated from the purchased volume data submitted, taking into account portion of primary material and recycled material (as needed), then applying the relevant conversion factors.

Fuel- and energy-related activities (not included in Scope 1 or Scope 2)

Fuel- and energy-related activities data covers the resulting CO₂e emissions from the exploration of raw materials, pre-processing, transport and storage of fuels as well as transmission and distribution losses related to fuel and electricity consumptions:

- Gathered energy data from invoices/meter readings (manual or electronic)
- Reported for all energy purchased including energy used in manufacturing operations and adjacent warehouses and office buildings/spaces
- Data not reported for operations outsourced to third parties, such as distribution centres run by third parties, unless the activity is outsourced to a dedicated third-party contractor to conduct activities on our behalf on a site AMP owns/leases.

The Scope 3 GHG emissions, measured in tonnes CO₂e, is calculated from the usage data submitted, applying the relevant conversion factors.

Upstream transportation and distribution

Upstream transportation and distribution data covers the resulting CO₂e emissions from all transports carried out on behalf of and paid by AMP:

- Gathered upstream transportation and distribution data from suppliers including fuel consumption, mode of transport, distance and/or load factor
- Inbound logistics considers only the most relevant material (i.e., aluminium)
- Outbound logistics includes transport of products where payment to logistic companies have been added to the product price
- Transports conducted with own trucks are omitted from this category as they are included in scope 1 emissions.

The Scope 3 GHG emissions, measured in tonnes CO₂e, is calculated from the supplier data submitted, applying the relevant conversion factors.

Waste generated in operations

Waste generated in operations data covers the resulting CO₂e emissions from the disposal of waste for all facilities:

- Gathered waste volume data, categorised in waste fractions, from invoices
- Reported for all waste generated in manufacturing operations and adjacent warehouses and office buildings/spaces
- Waste volumes are categorised into waste fractions (e.g., batteries, chemicals, construction waste, dust, electrical waste, metal (excluding process class scrap as this is accounted for under purchased goods and services), municipal waste, oil, organic waste, paint and varnish, paper and cardboard, plastic, sludge, soil, and wood).
- Designation of disposal method is also considered (i.e., recycled/not recycled/incineration/landfill) as this has significant impact on the relevant emission factors.

The Scope 3 GHG emissions, measured in tonnes CO₂e, is calculated from the waste volume data submitted, applying the relevant conversion factors.

GHG emissions factors

For fossil fuel combustion, the latest available Intergovernmental Panel on Climate Change (IPCC) Guidelines for National GHG Inventories conversion factors using the lower calorific value (lcv) for natural gas, heavy fuel oil, diesel oil and liquefied petroleum gas (LPG) are used.

For electricity, location-based, country specific CO₂e conversion factors published by the UK Department for Environment, Food & Rural Affairs (DEFRA) are used, apart from the United States. The United States data are converted using the United States Environmental Protection Agency (EPA) Emissions & General Resource Integrated Database (eGRID) specific CO₂e factors that take into account where the electricity was produced within the country.

For electricity, market-based, facility specific CO₂e conversion factors from utility suppliers are used. These factors are requested and updated on an annual basis. Further confirmation of energy attribute certificates or equivalents, as relevant, are maintained centrally.

For facilities reporting hot water, factors are provided on an annual basis by Technical University of Dresden. In 2022, only two facilities in Germany report hot water.

For purchased goods and services, the latest available GaBi Professional and EcoInvent factors are used across all regions. When primary data for product carbon footprint (PCF) are provided by suppliers based on a mix of primary material and recycled material, further recycling is not included to avoid double counting. Primary data are reported on an annual basis. When primary data is not available, the portion of primary material and recycled material is considered based on the calculation detailed in the methodology section above and relevant conversion factors from GaBi Professional and EcoInvent are used.

For fuel-related activities (not included in Scope 1), the latest available DEFRA factors are used across all regions.

For electricity-related activities (not included in Scope 2), the latest available GaBi Professional factors are used across all regions.

For upstream transportation and distribution, the latest available DEFRA factors for freight transport by heavy goods vehicles considering various vehicle sizes and load factors are used across all regions. For the most precise estimation of well-to-tank (WTT) and well-to-wheel (WTW) emissions, the relevant conversion factors are determined based on available input variables.

For waste generated in operations, the latest available DEFRA, GaBi Professional and EcoInvent factors are used across all regions.

Conversion factors are updated annually to reflect the factors published by the DEFRA, GaBi Professional, EcoInvent that are in effect as of 31 March in the reporting year.

Uncertainty

The capture of environmental data continues to evolve. AMP businesses are dispersed around the globe and in many instances rely on third parties to provide elements of data.

AMP continually seeks ways to improve the quality and reliability of data through robust collection processes in which completeness, accuracy and relevance are reviewed in light of AMP's definition, policies and procedures.

Estimates

Where actual data are not available, businesses apply estimation methodologies to arrive at figures that accurately reflect the businesses activities.

In instances where estimation or extrapolation techniques are used, the following points are considered by the businesses:

- Is the sample upon which the estimation/extrapolation-based representative of the data?
- Has the sample been reviewed at least annually?
- Has the technique for estimation/extrapolation been reviewed at least annually?
- Can the data be benchmarked to or checked against alternative sources of data for reasonableness?
- Has the current year's data been compared to the prior year's data to identify any significant changes?

The businesses are challenged to work with suppliers and to continually enhance internal data capture processes to improve the quality of each element of sustainability performance data.

Review of GHG emissions inventory

Third-party conducted a review and provided limited assurance, based on the international assurance and audit standard of ISAE 3000, of AMP's GHG emissions reporting for the year ended December 31, 2022, for Scope 1, Scope 2 and Scope 3 GHG emissions. This can be found in the Sustainability area of [AMP's corporate website](#).

